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Finally, the APEX may be used to help grow and differentiate any tissue or cell line in vivo or in vitro.

It will be understood by those of skill in the art that numerous and various modifications can be made without departing from the spirit of the present invention. Therefore, it should be clearly understood that the forms of the present invention are illustrative only and are not intended to limit the scope of the present invention.

What is claimed is:

1. A method of treating myocardial infarction in an individual comprising:
 - determining a site of dysfunctional cardiac muscle in the individual;
 - titrating a platelet-rich plasma composition to obtain a pH of about 7.3 to 7.5; and
 - introducing the platelet-rich plasma composition via a catheter into and around the site of dysfunctional cardiac muscle, wherein no exogenous activator is

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added to the composition prior to its introduction into and around the site of dysfunctional cardiac muscle thereby treating myocardial infarction.

2. The method of claim 1, wherein the platelet-rich plasma composition comprises platelets obtained from the individual.
3. The method of claim 2, wherein the individual is a human individual.
4. The method of claim 1, wherein the individual is a human individual.
5. The method of claim 1, wherein the titration is performed using a bicarbonate buffer.
6. The method of claim 1, wherein the introduction of the platelet-rich plasma is combined with an implantable device.
7. The method of claim 6, wherein the implantable device is a stent.

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